

WE CLAIM

- 5 1. A communications network arrangement providing voice over IP or voice over ATM services, the network arrangement comprising: a first media gateway controller controlling a first gateway and provided with a first operating protocol, a second media gateway controller controlling a second gateway and provided with a second operating protocol, and a gateway address translator incorporating proxies for said first and second gateways
10 respectively, wherein said gateway address translator provides a relay function for messaging between each said media gateway controller and its corresponding gateway, and a virtual bearer function for messaging between said media gateway controllers.
- 15 2. A communications network arrangement as claimed in claim 1, wherein said gateway address translator comprises gateway proxies, one for each said gateway, and virtual gateways, one for each said media gateway controller.
- 20 3. A communications network arrangement as claimed in claim 2, wherein communication between media gateway controllers is provided via a signalling network.
- 25 4. A communications network arrangement as claimed in claim 3, wherein said signalling network comprises a CCS7 network
5. A communications network arrangement as claimed in claim 2 wherein said gateway address translator comprises software provided in machine readable form on a storage medium.
- 30 6. A communications network arrangement as claimed in claim 5, wherein said gateway address translator comprises a software application running on one of said gateway controllers.

7. A communications network arrangement as claimed in claim 1, wherein at least one said media gateway controller is constituted by a distributed MGC pair providing separate ingress and egress functions.
- 5 8. A communications arrangement as claimed in claim 7, wherein at least one said media gateway controller is constituted by a soft switch.
9. A gateway address translator for use in a communications network arrangement providing voice over IP or voice over ATM services and comprising: a first media gateway controller controlling a first gateway and provided with a first operating protocol, a second media gateway controller controlling a second gateway and provided with a second operating protocol, the gateway address translator comprising; gateway proxies, one for each said gateway, and virtual gateways, one for each said media gateway controller, wherein said gateway proxies provide a relay function for messaging between each said media gateway controller and its corresponding gateway, and wherein said virtual gateways provide a virtual bearer function for messaging between said media gateway controllers.
- 10 10. A gateway address translator as claimed in claim 7, and comprising software provided in machine readable form on a storage medium.
- 15 11. A gateway address translator as claimed in claim 8, and incorporated in a media gateway controller.
- 20 12. A method of providing voice over IP or voice over ATM services in a communications network arrangement comprising: a first media gateway controller controlling a first gateway and provided with a first operating protocol, and a second media gateway controller controlling a second gateway and provided with a second operating protocol, the method comprising provisioning proxies of said gateways so as to provide a relay function for messaging between each said media gateway controller and its corresponding gateway, said messaging utilising the protocol of the controller
- 25 30

and the gateway, and a virtual bearer function for enabling messaging between said media gateway controllers.

- 5 13. A method of interfacing media gateway controllers and media gateways having different operating protocols in a communications network arrangement providing voice over IP or voice over ATM services, the method comprising creating software proxies of said gateways with which said media gateways communicate each in its respective operating protocol.
- 10 14. A communications network arrangement providing voice over IP or voice over ATM services and incorporating a plurality of media gateways and media gateway controllers therefor whereby voice calls are set up over virtual channels in the network, wherein said media gateways and media gateway controllers have different operating protocols, and wherein communications
15 between said media gateways and media gateway controllers are relayed via proxies whereby each said media gateway and media gateway controller can send and receive communications in its own protocol.
- 20 15. Software in machine readable form provided on a storage medium and adapted to control delivery of voice over IP or voice over ATM services in a communications network arrangement comprising: a first media gateway controller controlling a first gateway and provided with a first operating protocol, and a second media gateway controller controlling a second gateway and provided with a second operating protocol, the software
25 providing; means for provisioning proxies of said gateways so as to provide a relay function for messaging between each said media gateway said messaging utilising the protocol of the controller and the gateway, and means for providing a virtual bearer function for enabling messaging between said media gateway controllers.
- 30